

[illegible]

```
IIIIII  NN  NN  IIIIII  FFFFFFFF  CCCCCCCC  BBBB BBBB
IIIIII  NN  NN  IIIIII  FFFFFFFF  CCCCCCCC  BBBB BBBB
II      NN  NN  II      FF      CC      BB      BB
II      NN  NN  II      FF      CC      BB      BB
II      NNNN  NN  II      FF      CC      BB      BB
II      NNNN  NN  II      FFFFFFFF  CC      BBBB BBBB
II      NN  NN  II      FFFFFFFF  CC      BBBB BBBB
II      NN  NN  II      FF      CC      BB      BB
II      NN  NN  II      FF      CC      BB      BB
II      NN  NN  II      FF      CC      BB      BB
II      NN  NN  IIIIII  FF      CCCCCCCC  BBBB BBBB
IIIIII  NN  NN  IIIIII  FF      CCCCCCCC  BBBB BBBB
```

```
....
....
....
....
```

```
LL      IIIIII  SSSSSSSS
LL      IIIIII  SSSSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SSSSSS
LL      II      SSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LLLLLLLL  IIIIII  SSSSSSSS
LLLLLLLL  IIIIII  SSSSSSSS
```

```
1 0001 0 MODULE INIFCB (
2 0002 0     LANGUAGE (BLISS32),
3 0003 0     IDENT = 'V04-000'
4 0004 0 ) =
5 0005 1 BEGIN
6 0006 1
7 0007 1
8 0008 1 *****
9 0009 1 *
10 0010 1 *  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
11 0011 1 *  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
12 0012 1 *  ALL RIGHTS RESERVED.
13 0013 1 *
14 0014 1 *  THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED
15 0015 1 *  ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE
16 0016 1 *  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER
17 0017 1 *  COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY
18 0018 1 *  OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY
19 0019 1 *  TRANSFERRED.
20 0020 1 *
21 0021 1 *  THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE
22 0022 1 *  AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT
23 0023 1 *  CORPORATION.
24 0024 1 *
25 0025 1 *  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
26 0026 1 *  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
27 0027 1 *
28 0028 1 *****
29 0029 1 *****
30 0030 1
31 0031 1 ++
32 0032 1
33 0033 1 FACILITY: F11ACP Structure Level 1
34 0034 1
35 0035 1 ABSTRACT:
36 0036 1
37 0037 1     These routines create and initialize a file control block
38 0038 1     from the given file header.
39 0039 1
40 0040 1 ENVIRONMENT:
41 0041 1
42 0042 1     STARLET operating system, including privileged system services
43 0043 1     and internal exec routines. These routines must be called in
44 0044 1     kernel mode.
45 0045 1
46 0046 1
47 0047 1 --
48 0048 1
49 0049 1
50 0050 1 AUTHOR: Andrew C. Goldstein, CREATION DATE: 14-Dec-1976 16:48
51 0051 1
52 0052 1 MODIFIED BY:
53 0053 1
54 0054 1     V03-002 LMP0221      L. Mark Pilant,      31-Mar-1984 12:16
55 0055 1     Add support for an ORB in the fcb.
56 0056 1
57 0057 1     V03-001 STJ3108     Steven T. Jeffreys,    24-Jun-1983
```

INIFCB  
V04-000

8 14  
16-Sep-1984 01:07:36  
14-Sep-1984 12:29:38

VAX-11 Bliss-32 V4.0-742  
DISK\$VMSMASTER:[F11A.SRC]INIFCB.B32;1 Page 2 (1)

```
.. 58      0058 1  |
.. 59      0059 1  |
.. 60      0060 1  |
.. 61      0061 1  |
.. 62      0062 1  |
.. 63      0063 1  |
.. 64      0064 1  |
.. 65      0065 1  |
.. 66      0066 1  |
.. 67      0067 1  |

                                Fix link truncation error.

A0100  ACG0001      Andrew C. Goldstein, 10-Oct-1978 20:01
        Previous revision history moved to F11A.REV

                                **

LIBRARY 'SYS$LIBRARY:LIB.L32';
REQUIRE 'SRC$:FCPDEF.B32';
```



```
69 0382 1 GLOBAL ROUTINE INIT_FCB (FCB, HEADER) : NOVALUE =
70 0383 1
71 0384 1 ++
72 0385 1
73 0386 1 FUNCTIONAL DESCRIPTION:
74 0387 1
75 0388 1 This routine initializes the given FCB according to the given
76 0389 1 file header.
77 0390 1
78 0391 1 CALLING SEQUENCE:
79 0392 1 INIT_FCB (ARG1, ARG2)
80 0393 1
81 0394 1 INPUT PARAMETERS:
82 0395 1 ARG1: FCB address
83 0396 1 ARG2: header address
84 0397 1
85 0398 1 IMPLICIT INPUTS:
86 0399 1 HEADER_LBN contains LBN of header block
87 0400 1
88 0401 1 OUTPUT PARAMETERS:
89 0402 1 NONE
90 0403 1
91 0404 1 IMPLICIT OUTPUTS:
92 0405 1 NONE
93 0406 1
94 0407 1 ROUTINE VALUE:
95 0408 1 NONE
96 0409 1
97 0410 1 SIDE EFFECTS:
98 0411 1 FCB initialized
99 0412 1
100 0413 1 --
101 0414 1
102 0415 2 BEGIN
103 0416 2
104 0417 2 MAP
105 0418 2 FCB : REF BBLOCK, ! FCB argument
106 0419 2 HEADER : REF BBLOCK; ! file header arg
107 0420 2
108 0421 2 LOCAL
109 0422 2 FCB_ORB : REF BBLOCK, ! Address of the ORB within the FCB
110 0423 2 MAP_AREA : REF BBLOCK, ! pointer to header map area
111 0424 2 MAP_COUNT : REF BBLOCK, ! count of map pointers
112 0425 2 MAP_POINTER : REF BBLOCK, ! pointer to scan map
113 0426 2 FILESIZE; ! size of file in blocks
114 0427 2
115 0428 2 EXTERNAL
116 0429 2 HEADER_LBN : ADDRESSING_MODE (GENERAL); ! LBN of file header
117 0430 2
118 0431 2 ! Set up the ORB address.
119 0432 2
120 0433 2 FCB_ORB = FCB[FCB$R_ORB];
121 0434 2
122 0435 2 ! Get the known constants and the simple stuff from the file header
123 0436 2 (i.e., header LBN, file ID, starting VBN, file owner and file protection).
124 0437 2
125 0438 2
```

```

: 126 0439 2 FCB[FCB$L_HDLBN] = .HEADER_LBN;
: 127 0440 2 FCB[FCB$W_FID_NUM] = .HEADER[FH1$W_FID_NUM];
: 128 0441 2 FCB[FCB$W_FID_SEQ] = .HEADER[FH1$W_FID_SEQ];
: 129 0442 2 FCB_ORB[ORB$W_UICMEMBER] = .HEADER[FH1$B_UICMEMBER];
: 130 0443 2 FCB_ORB[ORB$W_UICGROUP] = .HEADER[FH1$B_UICGROUP];
: 131 0444 2 FCB_ORB[ORB$V_PROT_16] = 1;
: 132 0445 2 FCB_ORB[ORB$W_PROT] = .HEADER[FH1$W_FILEPROT];
: 133 0446 2 IF .HEADER[FH1$V_SPOOL] THEN FCB[FCB$V_SPOOL] = 1;
: 134 0447 2 FCB[FCB$L_EFBLK] = ROT (.BBLOCK[HEADER[FH1$W_RECATTR], FATS$L_EFBLK], 16);
: 135 0448 2 IF .FCB[FCB$L_EFBLK] NEQ 0
: 136 0449 2 AND .BBLOCK[HEADER[FH1$W_RECATTR], FATS$W_FFBYTE] EQL 0
: 137 0450 2 THEN FCB[FCB$L_EFBLK] = .FCB[FCB$L_EFBLK] - 1;
: 138 0451 2
: 139 0452 2 ! Now scan the map area. Get the starting LBN if the file is contiguous
: 140 0453 2 ! and count up the file size from the retrieval pointers.
: 141 0454 2 !
: 142 0455 2
: 143 0456 2 MAP_AREA = .HEADER + .HEADER[FH1$B_MPOFFSET]*2;
: 144 0457 2 MAP_POINTER = .MAP_AREA + FM1$C_POINTERS;
: 145 0458 2 FCB[FCB$W_SEGN] = .MAP_AREA[FM1$B_EX_SEGNUM];
: 146 0459 2
: 147 0460 2 FCB[FCB$L_STLBN] = 0; ! assume non-contiguous file
: 148 0461 2 IF .HEADER[FH1$V_CONTIG]
: 149 0462 2 THEN
: 150 0463 2 BEGIN
: 151 0464 2 FCB[FCB$L_STLBN] = .MAP_POINTER[FM1$W_LOWLBN]; ! get low order LBN
: 152 0465 2 (FCB[FCB$L_STLBN]<16,8) = .MAP_POINTER[FM1$B_HIGHLBN]; ! and high order
: 153 0466 2 END;
: 154 0467 2
: 155 0468 2 FILESIZE = 0;
: 156 0469 2 DECR MAP_COUNT FROM .MAP_AREA[FM1$B_INUSE]/2 TO 1 DO
: 157 0470 2 BEGIN
: 158 0471 2 FILESIZE = .FILESIZE + .MAP_POINTER[FM1$B_COUNT] + 1;
: 159 0472 2 MAP_POINTER = .MAP_POINTER + 4;
: 160 0473 2 END;
: 161 0474 2 FCB[FCB$L_FILESIZE] = .FILESIZE;
: 162 0475 2
: 163 0476 2 IF .FCB[FCB$L_EFBLK] GTR .FILESIZE
: 164 0477 2 THEN FCB[FCB$L_EFBLK] = .FILESIZE;
: 165 0478 2
: 166 0479 1 END; ! end of routine INIT_FCB

```

```

.TITLE INIFCB
.IDENT \V04-000\

```

```

.EXTRN HEADER_LBN

```

```

.PSECT $CODE$,NOWRT,2

```

```

.ENTRY INIT_FCB, Save R2,R3,R4,R5
MOVL FCB, R3
MOVAB 88(R3), FCB_ORB
MOVL HEADER_LBN, -52(R3)
MOVL HEADER, R2
MOVL 2(R2), 36(R3)
MOVZBW 8(R2), (FCB_ORB)

```

```

003C 00000
53 04 AC D0 00002
50 58 A3 9E 00006
34 A3 00000000G 00 D0 0000A
52 08 AC D0 00012
24 A3 02 A2 D0 00016
60 08 A2 9B 0001B

```

```

: 0382
: 0433
: 0439
: 0440
: 0442

```



04	02	A0	09	A2	9B	0001F	MOVZBW	9(R2), 2(FCB_ORB)	: 0443
	0B	A0		01	88	00024	BISB2	#1, 11(FCB_ORB)	: 0444
	18	A0	0A	A2	B0	00028	MOVW	10(R2), 24(FCB_ORB)	: 0445
	0D	A2		04	E1	0002D	BBC	#4, 13(R2), 1\$	: 0446
	22	A3		10	88	00032	BISB2	#16, 34(R3)	: 0447
65		55	3C	A3	9E	00036	MOVAB	60(R3), R5	: 0448
	16	A2		10	9C	0003A	ROTL	#16, 22(R2), (R5)	: 0449
				07	13	0003F	BEQL	2\$	: 0450
			1A	A2	B5	00041	TS W	26(R2)	: 0456
				02	12	00044	BNEI	2\$	: 0457
		50		65	D7	00046	DECL	(R5)	: 0458
		51	01	A2	9A	00048	MOVZBL	1(R2), R0	: 0460
		50		62	40	3E	MOVAB	(R2)(R0), MAP_AREA	: 0461
	2A	A3	0A	A1	9E	00050	MOVAB	10(R1), MAP_POINTER	: 0464
				61	9B	00054	MOVZBW	(MAP_AREA), 42(R3)	: 0465
			30	A3	D4	00058	CLRL	8(R3)	: 0466
			0C	A2	95	0005B	TSTB	12(R2)	: 0468
	30	A3		09	18	0005E	BGEQ	3\$	: 0469
	32	A3	02	A0	3C	00060	MOVZWL	2(MAP_POINTER), 48(R3)	: 0471
				60	90	00065	MOVB	(MAP_POINTER), 50(R3)	: 0472
		54		52	D4	00069	CLRL	FILESIZE	: 0474
		54	0B	A1	9A	0006B	MOVZBL	8(MAP_AREA), R4	: 0476
				02	C6	0006F	DIVL2	#2, R4	: 0477
				54	D6	00072	INCL	MAP_COUNT	: 0479
		51		0C	11	00074	BRB	5\$	: 0480
		52	01	A0	9A	00076	MOVZBL	1(MAP_POINTER), R1	: 0481
		50		01	A1	42	MOVAB	1(R1)[FILESIZE], FILESIZE	: 0482
		F1		04	C0	0007F	ADDL2	#4, MAP_POINTER	: 0483
	38	A3		54	F5	00082	SOBGTR	MAP_COUNT, 4\$	: 0484
		52		52	D0	00085	MOVL	FILESIZE, 56(R3)	: 0485
				65	D1	00089	CMPL	(R5), FILESIZE	: 0486
				03	15	0008C	BLEQ	6\$	: 0487
		65		52	D0	0008E	MOVL	FILESIZE, (R5)	: 0488
				04	00	0091	RET		: 0489

; Routine Size: 146 bytes, Routine Base: \$CODE\$ + 0000

: 167 0480 1  
: 168 0481 1 END  
: 169 0482 0 ELUDOM

## PSECT SUMMARY

Name	Bytes	Attributes
\$CODE\$	146	NOVEC,NOWRT, RD , EXE,NOSHR, LCL, REL, CON,NOPI,ALIGN(2)

## Library Statistics

INIFCB  
V04-000

F 14  
16-Sep-1984 01:07:36  
14-Sep-1984 12:29:38

VAX-11 Bliss-32 V4.0-742  
DISK\$VMSMASTER:[F11A.SRC]INIFCB.B32;1 Page 6  
(2)

File	----- Total	Symbols Loaded	----- Percent	Pages Mapped	Processing Time
;\$255\$DUA28:[SYSLIB]LIB.L32;1	18619	31	0	1000	00:01.9

COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS\$:INIFCB/OBJ=OBJ\$:INIFCB MSRC\$:INIFCB/UPDATE=(ENHS:INIFCB)

: Size: 146 code + 0 data bytes  
: Run Time: 00:07.9  
: Elapsed Time: 00:26.3  
: Lines/CPU Min: 3642  
: Lexemes/CPU-Min: 17410  
: Memory Used: 110 pages  
: Compilation Complete



0165 AH-BT13A-SE  
VAX/VMS V4.0

**DIGITAL EQUIPMENT CORPORATION**  
**CONFIDENTIAL AND PROPRIETARY**